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10/580,577	04/26/2007	Michael Ernest Saxby	FHW-145US	5637

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LAHIVE & COCKFIELD, LLP
FLOOR 30, SUITE 3000
ONE POST OFFICE SQUARE
BOSTON, MA 02109

EXAMINER

ABDOSH, SAMIR

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,577	Applicant(s) SAXBY, MICHAEL ERNEST	
	Examiner SAMIR ABDOSH	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>25 May 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a first Office Action Non-Final rejection on the merits. Voluntary amendments to the claims have been acknowledged and received on May 25th, 2006 wherein claims 1-17 were amended and claim 18 was cancelled. Therefore, claims 1-17, as amended, are currently pending and have been considered below.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 16, the term "low friction material" is used to describe the material of the closure member. The applicant fails to provide a definition as to what precisely constitutes a low friction material (such as by providing a list of acceptable materials or by providing an acceptable range for frictional coefficients). For purposes of examination, the term "low friction material" will be construed as any material with a friction factor low enough as to allow movement within a gas passage.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

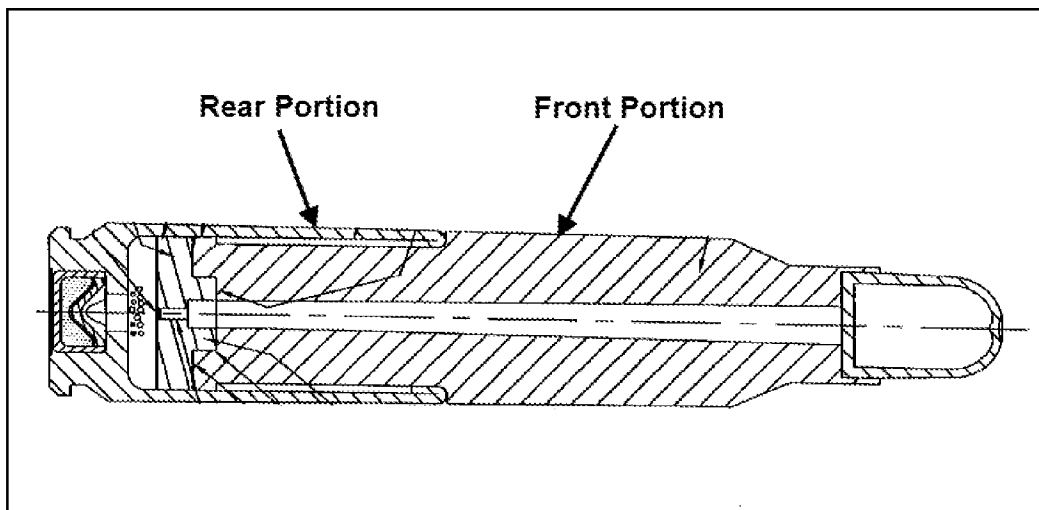
4. Claims 1-6, 9-11, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Dionne (US 6,439,123).

As per claim 1, Dionne teaches a low energy cartridge comprising:

an outer casing **(1)**;

a rear telescopically slidable portion **(11)** disposed, in use, to be telescopically extendable with respect to the outer casing in a direction towards a breech-block of the firearm (see Figure 2 for contacted position, and Figure 6 for extended position wherein the rear portion is telescopically extended rearward towards a breech block);

a front telescopically slidable portion (see Examiner's Diagram I below) disposed, in use, to be telescopically extendable with respect to the outer casing in a direction towards the barrel of a firearm;



Examiner's Diagram I. Modified version of Figure 2 shown in Dionne (US 6,439,123).

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means for causing each telescopically slidable portion, in use, to telescopically extend in reaction to firing of the firearm containing the cartridge (via propellant gas **26** shown in Figure 6);

an open end of the front telescopically slidable portion configured to receive a projectile; and a

means for propelling the projectile from the open end (propellant gas **26** travels through passageways **7** and **26** and on through the front end of the projectile).

As per claim 2, Dionne teaches the front telescopically extendable portion is made from a plastic, other pliable material or of a composite construction so as to seal the front portion into the outer casing and a chamber of the firearm(via plastic materials, see column 1, ll. 20-21).

As per claim 3, Dionne teaches a projectile received in the front telescopically slidable portion, the projectile comprising a bullet (shown positioned in the opening of the front portion as shown in Figure 2), configured such that the bullet remains sealed in the front portion until a portion of the bullet has entered a rifled part of the barrel of the firearm (Figures 1 and 2 show a bullet **2** sealed in the front opening of chamber portion **6** in a manner that would prevent gasses from leaking out of the chamber and thereby creating unwanted pressure drops, and as propellant gas **26** travels up through passageway **7**, the bullet is thrust forward into the barrel portion of a firearm) .

As per claim 4, Dionne teaches wherein the means for causing the telescopically slidable portions to telescopically extend comprises a gas releasing device (see element **13**) positioned at a rear of the rear telescopically slidable portion

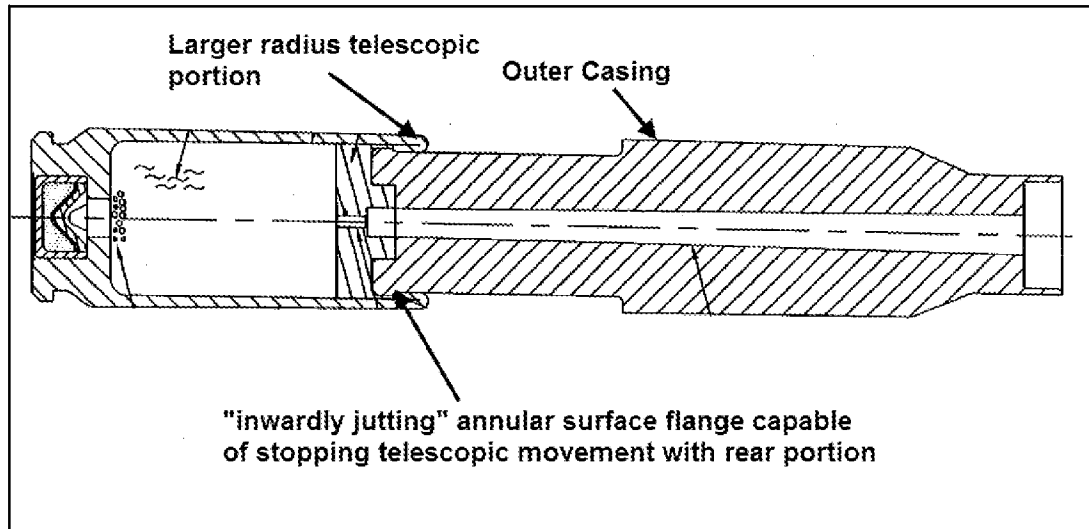
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(as shown in Figures 2 and 3), an open ended gas passage **(7, 26)** extending through the rear portion and forwardly of the gas releasing device, and a closure member sealingly slidably located in the gas passage (via sealing disc **18** and protrusion **19**, see col. 3, ll. 27-30).

As per claim 5, Dionne teaches wherein the means for causing the telescopically slidable portions to telescopically extend comprises a primer **(5)** positioned at a rear of the rear portion (see Figure 3), and an open ended gas passage **(7)** extending through the rear portion and forwardly of the primer.

As per claim 6, Dionne teaches a propellant charge **(13)** ignited by the primer **(5)** and positioned between the front and rear telescopically slidable portions (see Figures 1 and 2).

As per claims 9 and 10, Dionne teaches an outer casing shaped so as to include at or near each end an inwardly jutting surface which serves to stop the telescopically slidable portions separating from the outer casing when the portions extend and wherein the inwardly jutting surface comprises an annular flange having an inner radius which is slightly smaller than a largest radius of the corresponding telescopically slidable portion (see Examiner's Diagram II below).



Examiner's Diagram II. Modified version of Figure 6 shown in Dionne showing elements from claims 9 and 10.

As per claim 11, Dionne teaches wherein the closure member comprises a plug (via protrusion component **19** of sealing disc **18**) which has a cross section in a direction perpendicular to a direction of travel of the telescopically slidable portions (Figure 2 illustrates that protrusion member **19** does in fact have a cross section that is perpendicular to the horizontal path of travel of the telescoping front and rear members), of similar shape and size to that of the gas passage of the first telescopically slidable portion (Figure 2 also illustrates that the size and shape of gas passage **7** aligns congruently with the end portion of the protrusion component **19**).

As per claim 16, Dionne teaches wherein the closure member (via protrusion component **19** of sealing disc **18**) has an outer surface which is selected to be of a low friction material (sealing disc **18** is taught to be made of the polymeric plastic

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polyoxymethylene acetyl, which is construed to be a low-friction plastic) so as to allow the member to easily slide along the gas passage **(26)**.

As per claim 17, Dionne teaches at least one gas tight seal between a telescopically slidable portion and the outer casing (via sealing disc **18**).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 8, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dionne (US 6,439,123).

As per claims 7 and 8, Dionne teaches a primer **(5)** positioned at a rear of the rear portion (see Figure 3), and an open ended gas passage **(7, 26)** extending through the rear portion and forwardly of the primer, but fails to explicitly teach a primer positioned at the rear of the front portion.

Although Dionne fails to explicitly teach such a configuration, repositioning the primer to the rear of the front portion is clearly an obvious variant of the invention disclosed separately in claim 5 where the primer is positioned at the rear of the rear portion (the latter configuration is taught by Dionne). Consequently, positioning the primer at the rear of the front portion is construed to be a mere rearrangement of parts, capable of being performed by one of ordinary skill in the art at the time the invention

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was made. The applicant is reminded that the courts have upheld that “more than a mere change of form or rearrangement of parts is necessary for patentability” (*Span-Deck, Inc. v. Fab-Con, Inc.*, 215 USPQ 835).

As per claims 12-15, Dionne discloses a closure member **(19)** made from a plastic material or steel (see col. 1, ll. 20-21), but fails to explicitly teach that the shape of the closure member is ball shaped (i.e. substantially spherical).

Although Dionne fails to disclose a spherical closure member, the applicant has failed to disclose exactly how a spherically shaped closure member performs any unique and exclusive function that is critical to the invention. The spherical closure member appears to simply be a variant of similar components found in the art (such as Dionne's flanged sealing member) that accomplishes the same predictable and expected result. Therefore, a spherical or ball-like shape of the closure member is considered to be an obvious variant that provides no new performance enhancement or function. The applicant is reminded that the courts have upheld that a “change in shape [of a component] must have a new function” in order to be considered a patentable advance (*In re Hanlon* 128 USPQ 384).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMIR ABDOSH whose telephone number is (571) 270-5799. The examiner can normally be reached on Monday through Friday 8:30 am to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Carone/
Supervisory Patent Examiner, Art
Unit 3641

SIA